

# Army Vector-borne Disease Report

01 July 2015

Data are preliminary and subject to change

- **Chikungunya:** Cases continue to occur in the Americas; 2 AD Army cases have been reported this year to date.
- **Spotted Fever Rickettsiosis:** 4 cases of RMSF have been reported in Army beneficiaries during 2015.

## Chikungunya (CHIKV)

- Since the first locally-acquired chikungunya cases in the Western Hemisphere were reported in December 2013, more than 1.5 million cases have been reported from 44 countries.
- Chikungunya virus infection should be considered in patients with acute onset of fever and polyarthralgia, especially in travelers who have returned within two weeks from areas with active virus transmission ([CDC](#)).

## Army Chikungunya Surveillance

- Two chikungunya cases in Army Soldiers were reported in 2015; both recovered.
  - Both cases had symptom onset following travel to the Caribbean (1 duty-related, 1 leisure).
- Chikungunya is now classified as a reportable medical event.
  - Chikungunya cases should be reported through the Disease Reporting System internet (DRSi) as "Chikungunya Fever" and include clinical presentation, travel history and hospital admission.
- For more information regarding Chikungunya please see the [USAPHC Chikungunya fact sheet](#).

Chikungunya Cases in the Americas 2015			
Location†	Locally Acquired‡	Imported£	Deaths
Caribbean Islands	16,801	1	21
Central & South America	380,517	162	35
North America	1,589	503	0
Total	398,907	666	56
Army Cases±			
Army AD‡	0	2	0
Army Non-AD	0	0	0
Chikungunya Cases in the Americas 2014			
Location†	Locally Acquired‡	Imported£	Deaths
Caribbean Islands	828,510	122	172
Central & South America	305,733	375	6
North America	166	2,041	0
Total	1,134,409	2,538	178
Army Cases±			
Army AD‡	10	12	0
Army Non-AD	38	6	0

Sources: PAHO DEC 2013-26 June 2015, CDC 23 June 2015, DRSi 23 June 2015  
 † Caribbean Islands include Puerto Rico & U.S. Virgin Islands; Central & South America includes continental countries only.  
 ‡ Includes suspect & confirmed cases; £ Confirmed imported cases.  
 ± Only cases whose case status is verified as confirmed/probable.  
 ‡ Army AD: Active Duty, recruits, cadets.

## DoD Army Laboratory WNV Mosquito Surveillance

- All mosquito pools tested for WNV have been negative.
- This season PHCR-North tested 40 pools, PHCR-West tested 4 pools, and PHCR-South tested 126 pools.

WNV Mosquito Pool Testing	PHC Region	Year to Date 2015
		No. Positive (No. Tested)
	North	0(40)
	South	0(126)
	West	0(4)

## Army Disease Surveillance

- Four cases of Rocky Mountain Spotted Fever have been reported in Army beneficiaries during 2015, compared to 6 cases during the same time period in 2014.
  - Of the 4 cases, 3 (75%) were AD, the remaining case was an Army retiree.

## Case Reporting

- Currently, the US Army reports cases of Rocky Mountain Spotted Fever based on serological evidence of a change in IgG antibodies reactive with only *Rickettsia rickettsii*.
- In 2010, the CDC changed the case definition from Rocky Mountain Spotted Fever to Spotted Fever Rickettsiosis to include clinically similar cases caused by *R. rickettsii* and similar spotted fever group *Rickettsia* species (such as *R. parkeri*).

## Army Tick Testing

- PHCR-West tested 42 *Amblyomma americanum* and 8 *Dermacentor variabilis* ticks for *R. rickettsii*, the pathogen that causes Rocky Mountain Spotted Fever. All ticks tested negative for the pathogen.
- PHCR-Europe tested one *D. variabilis* tick for *R. rickettsii*, the tick tested negative. The tick was collected by a Soldier on leave in the US.
- PHCR-North did not test any ticks for *R. rickettsii*, as most cases in the United States occur in North Carolina, Oklahoma, Arkansas, Tennessee, and Missouri ([CDC](#)).
- The DoD Human Tick Test Program identified 57 ticks positive for the pathogen *Borrelia burgdorferi* (34%), 10 for *Anaplasma phagocytophilum* (6%), 7 for *Ehrlichia chaffeensis* (1%), 5 for *Ehrlichia ewingii* (1%) and 1 for *Babesia microti* (1%) from ticks submitted for testing.

Rocky Mountain Spotted Fever Cases			
Population	Reporting Period‡	Cum. 2015	Cum. 2014
United States‡	29	29	47
Army Cases			
Confirmed and Probable			
Army AD‡	2	2	3
Army Non-AD†	2	2	12
Regional Distribution			
PHCR-North	1	1	7
PHCR-Pacific	1	1	0
PHCR-South	0	0	2
PHCR-West	2	2	5
Other/Unknown	0	0	1

Sources: CDC and AIPH DRSi as of 22 June 2015.  
 Note: Reporting location may differ from exposure location. CDC data is for Spotted Fever Rickettsiosis (including RMSF).  
 ‡ Cases reported for week 23 (ending 23 June 2015).  
 § Provisional confirmed and probable cases.  
 † Active duty, recruits, cadets.  
 ‡ Army-associated beneficiaries.

Human Tick Test Program	<i>A. phagocytophilum</i>	<i>B. microti</i>	<i>B. burgdorferi</i>	<i>E. chaffeensis</i>	<i>E. ewingii</i>	<i>E. muris-like</i>	<i>R. parkeri</i>	<i>R. rickettsii</i>
YTD No. Positive (YTD No. Tested)	10(168)	1(168)	57(168)	7(584)	5(584)	0(168)	0(0)	0(130)

Note: CONUS data only.

**Resources:** • PAHO • Human Tick Test Program • AFHSC Detecting and Reporting DoD Cases of Chikungunya Infection • CDC West Nile Virus • USAPHC

**Key:** CDC Centers for Disease Control and Prevention; DRSi Disease Reporting System Internet; AD Active Duty; PAHO Pan American Health Organization  
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